NITF Multi-Image Support

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System Needs

- ***Our proprietary program desires a standardized mechanism to package a collection of images from a single tasking request as a single NITF 2.1 file that is inter-operable with available NITF 2.1-certified COTS ELT's and promotes "ease of use" for the imagery analyst.***

Still-Capture Mode Overview

- Data Capture
  - A capture may include in the range of 1 – 25 geo-referenced image tiles
  - All tiles per tasking request are treated as a single collection
  - High resolution image tiles (> 4K x 4K)
- Product Processing (2 levels)
  - Level 1 Product: Sensor defect correction
  - Level 2 Product: Geometrical distortion correction
    - Virtual Mosaic (tiles are kept separate but capable of be display virtually on one display using metadata to reference tiles)
- Products compressed with JPEG2000
- Products formatted as NITF 2.1

Temporal-Image Capture Overview

- Data Capture
  - Capture in the range of 1 – 1000's of geo-referenced image tiles
  - High resolution capture (> 4K x 4K)
  - All tiles per tasking request are treated as a single collection
- Product Processing (2 levels)
  - Level 1 Product: Sensor defect correction
  - Level 2 Product: Geometrical distortion correction & tile sequence stabilization
- Working trade study to assess appropriate delivery format/compression for temporal image capture
  - MPEG-2
  - Motion JPEG2000 (preferred, and may wrap MJ2K as NITF 2.1)

Summary

- Our system will need to provide “collection of image tiles” to our end customer in either of the two options within our delivery timeframe
  - One NITF file per image tile
  - One NITF file comprised of all the image tiles
- Desire to have the NITF 2.1 format include Motion-J2K
- Desire to have COTS ELT’s to support these format designs in a standard implementation